

# X

# STÜBBE

## X-CLASS

## BUILT FOR THE EXTREME

### STÜBBE X-CLASS HEAVY DUTY PUMP

#### STANDARD CHEMICAL PUMP – TYPE NX

fully metallic chambered standard chemical process pump in plastic  
DIN EN ISO 2858

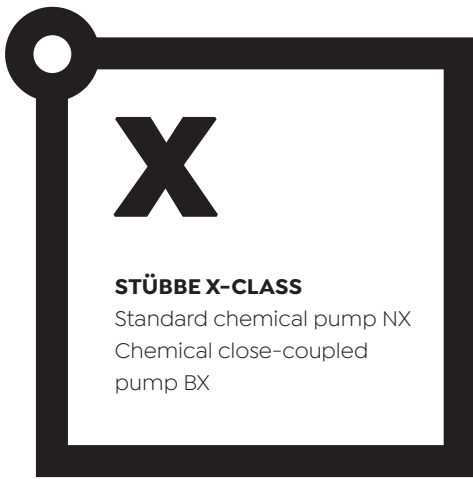
#### CHEMICAL CLOSE-COUPLED PUMP – TYPE BX

fully metallic chambered chemical closed-coupled process pump in plastic  
acc. to DIN EN ISO 2858

#### FEATURES

- Capacity up to 1000 m<sup>3</sup>/h (1500 rpm)
- Delivery head up to 120 m (3000 rpm)
- ATEX-compliant according to directive 2014/34/EU, group II, 2G, class T3 or T4





### STÜBBE X-CLASS

Standard chemical pump NX  
Chemical close-coupled  
pump BX

#### FEATURES

- STÜBBE X-CLASS pushes previously known application boundaries and redefines new standards.
- based on innovative strength and over 60 years of expertise in the use of thermoplastics, we have set a new milestone in the shape of a future-oriented, efficient and reliable pump system.
- fully metallic chambered plastic parts
- continuously for all pump sizes pressure level PN 16
- self-developed, innovative mechanical seal module kit (single- and double-acting), customized for STÜBBE X-CLASS pump
- efficient hydraulics due to up-to-date calculation programs
- extreme durability
- significantly improved life time
- pump in sandwich design (simple assembly)

#### USE

- for handling aggressive, crystallizing and toxic fluids as well as fluids filled with solids

#### CUSTOMIZED HYDRAULIC SYSTEMS

Can be selected according to application:

##### Half-open pump impellers (H):

- standard installation
- recommended for fluids filled with solids

##### Closed impellers (G):

- for clean media
- for best possible efficiency

##### Customized 3-channel non-clogging impellers (F):

- Vortex variant for specifically gentle pumping in extreme solids applications with large solids available

All designs are marked with the 3rd letter in the type designation.

#### PUMP VARIETY

- 18 different pump sizes up to 1,000 m<sup>3</sup>/h for even the most difficult pumping tasks

#### MAXIMUM SAFETY

- fully chambering of the thick-walled plastic components, protects the plastic components against UV light, among other things
- the chambering provides a certain protection in the event of sudden, strong leaks
- great plant safety
- improved protection against injuries of the operating personnel

#### LONG-LIVED AND STURDY

- metallic chambering absorbs a significant part of the pipework forces
- highly stressable fixed / loose bearing
- lifetime lubricated bearings (standard)
- reinforced bearing available with grease or oil lubrication (NX only)
- sturdy universal shaft for each available type of mechanical seal
- chambered O-rings

#### ATEX-COMPLIANT

According to directive 2014/34/EU (ATEX):

- Unit group II
- Category 2G
- Temperature class T3 or T4
- do not use pump with flammable or explosive fluids

#### MATERIAL VARIANTS

Depending on the mechanical, chemical, thermal or abrasive load, several materials are available for different applications:

- UHMW-PE (ultra high molecular low-pressure polyethylene)
- PP-H (homopolymeric polypropylene)
- PVDF (polyvinylidene fluoride)
- PFA / PTFE (perfluoralkoxy / polytetrafluorethylene)

All designs are marked with the 4th letter in the type designation.

#### OPTIONS

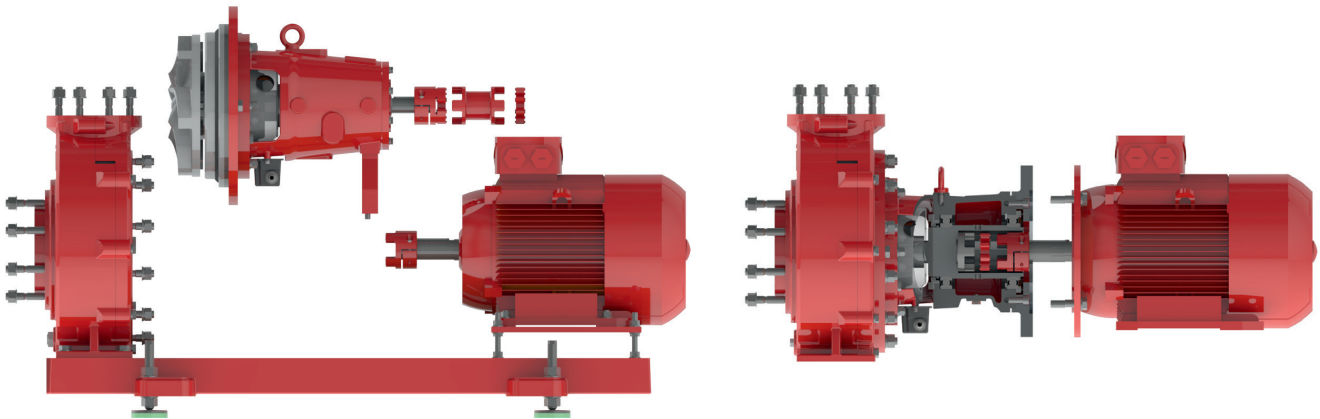
- Drain and flushing connections
- FDA approval for plastics and secondary seals
- conductive plastics available
- customized hydraulics on request
- stand quench and thermosyphon container
- self-priming container
- PTM pressure and temperature sensor (dry-running protection)

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## DESIGN



### PROCESS DESIGN NX

- special design principle, which considerably reduces assembly during repair work, as neither the pipe connection nor the motor has to be dismantled for the removal of the bearing carrier (including impeller and mechanical seal).
- easy-to-install, clamped double-cardian coupling (facilitates assembly works)
- foundationless installation (standard) on base plate made of cast iron EN-GJS-250 with leveling elements (no fastening on base necessary)
- all screws made of stainless steel

### CLOSE-COUPLED DESIGN BX

- The chemical standard pumps are also available in a close-coupled pump design under the type designation BX.
- This product series has its own shaft bearing as a special feature all the way through size 125-100-200, making assembly and disassembly comparable to a standard pump, as the pump is not „set up“ on a motor shaft.
- The pump has a hollow shaft, into which the flange motor is pushed.
- an elastic coupling is used for power transmission
- The design of the BX permits replacement of wear parts without disconnecting the pump housing/pipe connection.
- also available with ATEX motor as standard

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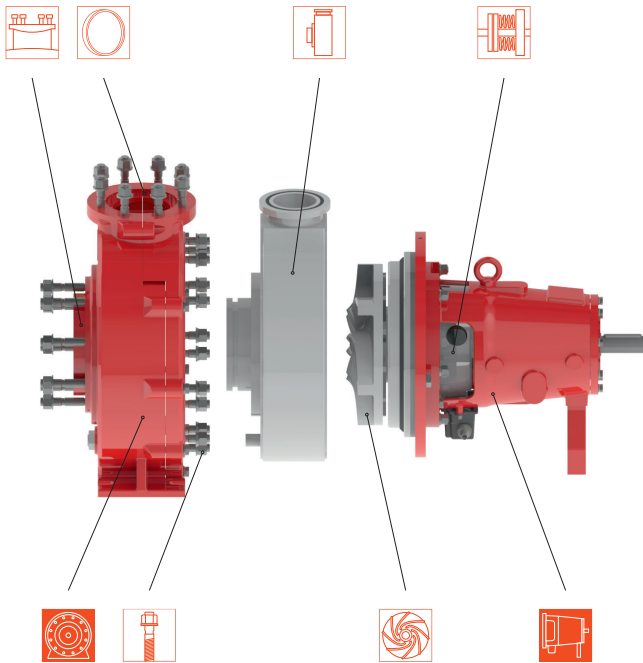
## STÜBBE X-CLASS

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## VARIANTS

- ✓ STANDARD
- OPTIONAL
- NOT AVAILABLE
- NOT APPLICABLE
- METALLIC MATERIAL
- OTHER MATERIAL

- <sup>1</sup> not for every pump size available  
<sup>2</sup> optionally with permanent or standstill flushing available  
<sup>3</sup> also ATEX  
<sup>4</sup> integrated with BX  
<sup>5</sup> depending on motor size  
<sup>6</sup> or equivalent



| PUMP TYPE                              | NX |    |     |            | BX |    |
|--|----|----|-----|------------|----|----|
|  | I  | II | III | IV/<br>IV+ | I  | II |
| <b>Bearing bracket size (LTG)</b>      |    |    |     |            |    |    |
| <b>Connections</b>                     |    |    |     |            |    |    |
| DIN EN 1092-1                          | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| ANSI                                   | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| Other                                  | •  | •  | •   | •          | •  | •  |
| <b>Casing armor</b>                    |    |    |     |            |    |    |
| EN-GJS-400-15                          | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| Other                                  | ○  | ○  | ○   | ○          | ○  | ○  |
| <b>O-rings</b>                         |    |    |     |            |    |    |
| EPDM                                   | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| FKM                                    | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| FFKM                                   | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| FKM/FEP-covered                        | •  | •  | •   | •          | •  | •  |
| <b>Screws</b>                          |    |    |     |            |    |    |
| 1.4301 <sup>6</sup>                    | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| 1.4571 <sup>6</sup>                    | •  | •  | •   | •          | •  | •  |
| <b>Plastic (casing + impeller)</b>     |    |    |     |            |    |    |
| PE-UHMW                                | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| PP <sup>3</sup>                        | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| PVDF                                   | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| PFA                                    | ✓  | ✓  | ✓   | •          | ✓  | ✓  |
| conductive                             | •  | •  | •   | •          | •  | •  |
| <b>Hydraulic</b>                       |    |    |     |            |    |    |
| half-open <sup>1</sup>                 | ✓  | ✓  | ✓   | ○          | ✓  | ✓  |
| closed <sup>1</sup>                    | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| non-clogging <sup>1</sup>              | ✓  | ✓  | ○   | ○          | ✓  | ✓  |
| <b>Mechanical seal</b>                 |    |    |     |            |    |    |
| single-acting (bellows) <sup>2</sup>   | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| single-acting (UV2) <sup>2</sup>       | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| single-acting with quench <sup>2</sup> | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| double-acting (UV3)                    | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| <b>Bearing</b>                         |    |    |     |            |    |    |
| lifetime lubricated                    | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| greased bearings can be relubricated   | •  | •  | •   | •          | ○  | ○  |
| oil lubrication                        | •  | •  | •   | •          | ○  | ○  |
| <b>Coating</b>                         |    |    |     |            |    |    |
| RAL 2002                               | ✓  | ✓  | ✓   | ✓          | ✓  | ✓  |
| special painting                       | •  | •  | •   | •          | •  | •  |
| <b>Draining</b>                        |    |    |     |            |    |    |
| design acc. to customer requirements   | •  | •  | •   | •          | •  | •  |

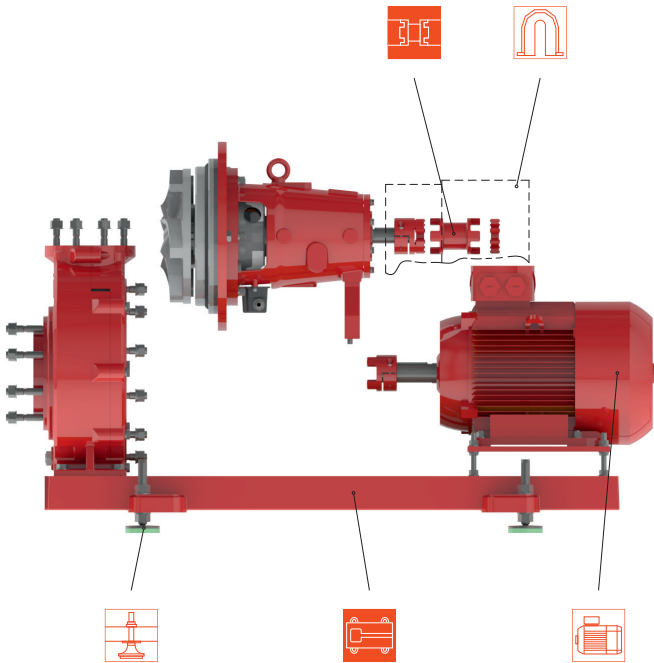
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Standard chemical pump NX  
Chemical close-coupled  
pump BX

- ✓ STANDARD
- OPTIONAL
- NOT AVAILABLE
- NOT APPLICABLE
- METALLIC MATERIAL
- OTHER MATERIAL

- <sup>1</sup> not for every pump size available
- <sup>2</sup> optionally with permanent or standstill flushing available
- <sup>3</sup> also ATEX
- <sup>4</sup> integrated with BX
- <sup>5</sup> depending on motor size
- <sup>6</sup> or equivalent



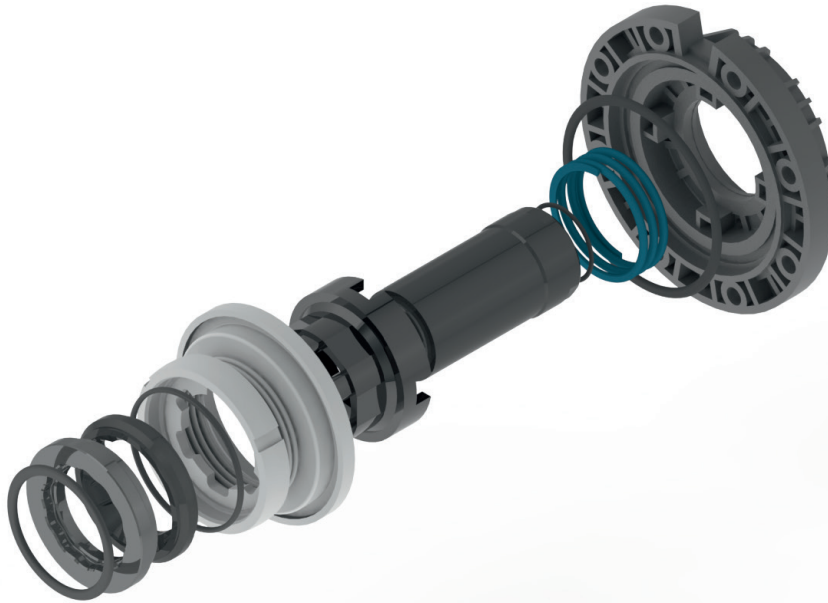
| PUMP TYPE   | NX |   |    |     |            | BX |    |
|---|----|---|----|-----|------------|----|----|
|   |    | I | II | III | IV/<br>IV+ | I  | II |
| <b>Bearing bracket size (LTG)</b>   |    |   |    |     |            |    |    |
| <b>Base plate</b>   |    |   |    |     |            |    |    |
|  EN-GJS-400-15                           | ✓  | ✓ | ✓  | ✓   | ✓          | ✓  |    |
| 1.4301 <sup>6</sup>   | •  | • | •  | •   | •          | •  |    |
| 1.4571 <sup>6</sup>   | •  | • | •  | •   | •          | •  |    |
| <b>Coupling (manufacturer)</b>  |    |   |    |     |            |    |    |
|  StS (WKE/H-DK) <sup>3,4</sup>           | ✓  | ✓ | ✓  | ✓   | –          | –  |    |
| more on request   | •  | • | •  | •   | –          | –  |    |
| <b>Coupling guard</b>   |    |   |    |     |            |    |    |
|  PP-GF30 <sup>5</sup>                    | ✓  | ✓ | ○  | ○   | –          | –  |    |
| 1.0038/steel (painted)  | •  | • | ✓  | ✓   | –          | –  |    |
| CW508L/brass (ATEX)   | •  | • | •  | •   | –          | –  |    |
| 1.4301 <sup>6</sup>   | •  | • | •  | •   | –          | –  |    |
| 1.4571 <sup>6</sup>   | •  | • | •  | •   | –          | –  |    |
| <b>Motor (manufacturer)</b>   |    |   |    |     |            |    |    |
|  Lammers                               | ✓  | ✓ | ✓  | ✓   | ✓          | ✓  |    |
| Siemens   | •  | • | •  | •   | •          | •  |    |
| more on request   | •  | • | •  | •   | •          | •  |    |
| <b>Fixation</b>   |    |   |    |     |            |    |    |
|  leveling elements 1.4301 <sup>6</sup> | ✓  | ✓ | ✓  | ✓   | ✓          | ✓  |    |
| leveling elements 1.4435 <sup>6</sup>   | •  | • | •  | •   | •          | •  |    |
| chemical anchors 1.4301 <sup>6</sup>  | •  | • | •  | •   | •          | •  |    |
| chemical anchors 1.4435 <sup>6</sup>  | •  | • | •  | •   | •          | •  |    |
| anchor bolts DIN 529 galvanised   | •  | • | •  | •   | •          | •  |    |
| <b>Accessories</b>  |    |   |    |     |            |    |    |
|  stand quench container                | ✓  | ✓ | ✓  | ✓   | ✓          | ✓  |    |
| thermosyphon container  | ✓  | ✓ | ✓  | ✓   | ✓          | ✓  |    |
| self-priming container  | •  | • | •  | •   | •          | •  |    |
| drain valves  | •  | • | •  | •   | •          | •  |    |
| grounding   | •  | • | •  | •   | •          | •  |    |
| impeller key (disassembly/assembly)   | •  | • | •  | –   | •          | •  |    |
| PTM pressure and temperature sensor   | •  | • | •  | •   | •          | •  |    |
| assembly tool mechanical seal   | •  | • | •  | •   | •          | •  |    |
| further accessories on request  | •  | • | •  | •   | •          | •  |    |

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## MECHANICAL SEALS

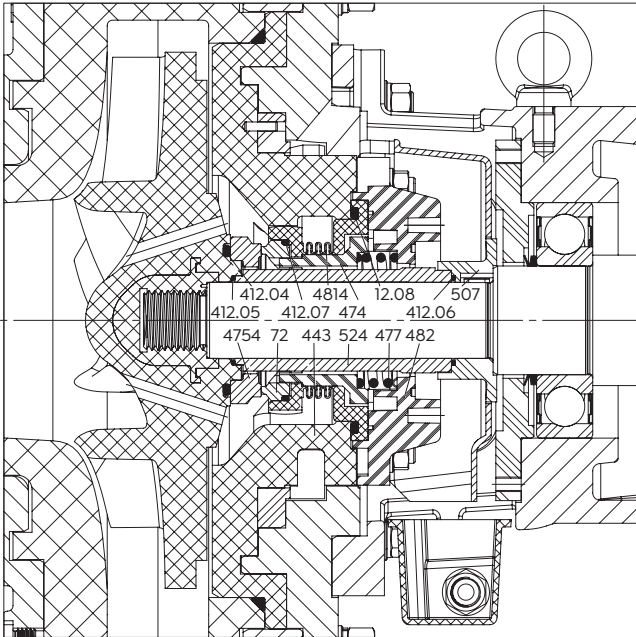


- All available mechanical seals were developed in-house and are based on an innovative mechanical seal module kit to allow flexible responses to any requirements.
- For the single-acting mechanical seal, a bellows version or a high-pressure version for high inlet pressures (up to max. 8 bar) is available, which can be configured with quench and/or permanent or standstill flushing, if necessary.
- The double-acting STÜBBE mechanical seal also uses the module system and covers particularly difficult applications.

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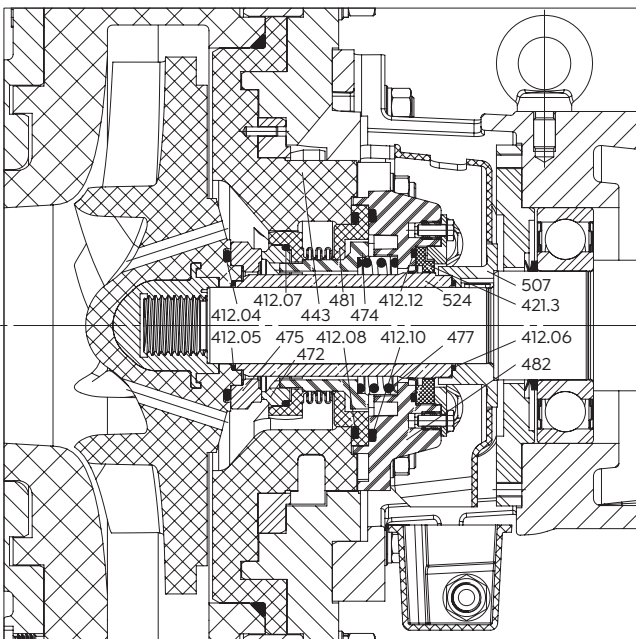
## STÜBBE X-CLASS

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### A) SINGLE-ACTING MECHANICAL SEAL (BELLOWS-TYPE) WITH INTERNAL FLUSHING – API PLAN 01 TYPE ESTN

- spring-loaded (PTTFE) bellows
- general-purpose chemical resistance since the spring does not come into contact with the medium
- up to 115 °C and up to 3 bar(g) inlet pressure
- up to 8 bar(g) static pressure
- at counter ring (rotating seal ring) and sliding ring (stationary seal ring), torques are transmitted by extremely stable interlocking (and not by a clamp fit) (high break-away torque in the event of sticking and adhesive forces)
- suitable for pumping media containing solids
- if required with quench and/or permanent or standstill flushing configurable



### B) VERSION WITH INTERNAL FLUSHING AND QUENCHING – API PLAN 62 TYPE QSTN

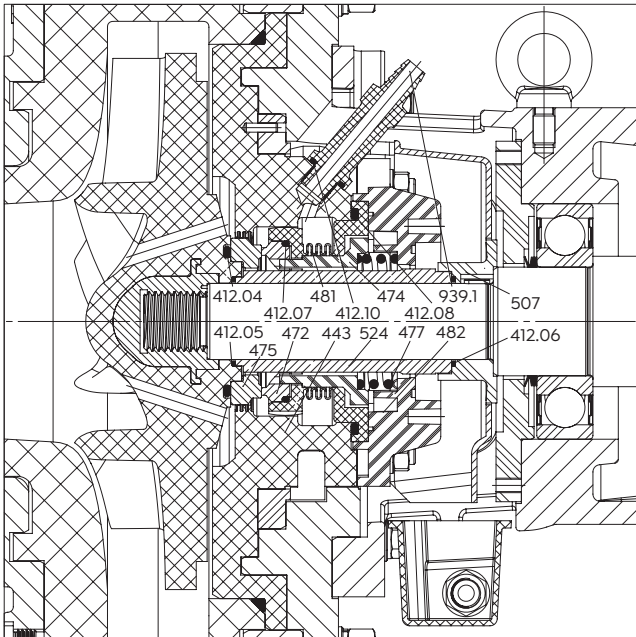
- Atmosphere-side seal of the bellows carrier (482) by radial seal (421.3)
- The resulting chamber is filled with quenching medium (such as deionized or very clean soft water):
  - at pressures between 0.8 and 8 bar the quenching medium is limited due to built-in flow limiter to approx. 30 ltr/h
  - this prevents formation of crystals within the mechanical seal
  - protection against hot running of the mechanical seal in the event of vacuum in the shaft seal chamber
  - also available in stand quenching version (with quenching container), here use without flow limiter
- ensure free discharge of the quenching medium the pressure in the quenching chamber is limited to a maximum of 0.5 bar(g)

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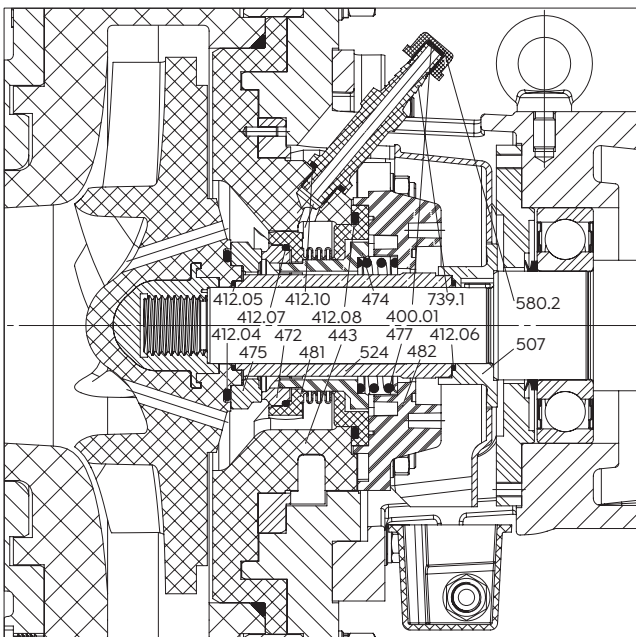
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## MECHANICAL SEALS



### C) VERSION WITH PERMANENT FLUSHING – API PLAN 32 TYPE ESTD

- suitable for pumping media containing solids
- flushes the mechanical seal with clean flushing medium (such as water)
- limitation of the flushing medium by a throttle section (labyrinth seal) within the pump
- flushing volume is dependent on the solids content and pump size 40–250 ltr/h
- it is useful to install a flow meter and a valve for controlling the flushing flow
- The flushing medium will mix with the pumped medium. For certain processes, such as evaporation processes or applications involving sulfuric acid, the use of flushing media is prohibited.



### D) VERSION WITH STANDSTILL FLUSHING - API PLAN 32 TYPE ESTS

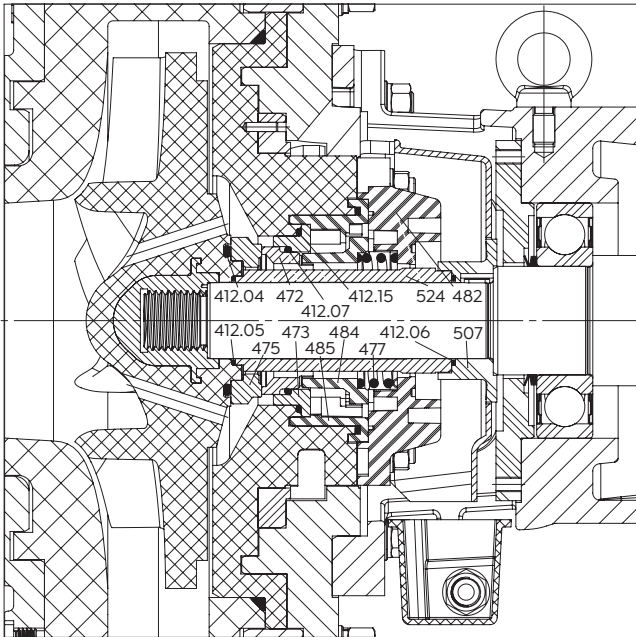
- design similar to the permanent flushing (C) variant, but without the throttle section
- for use with pumped media containing solids, where for process reasons the use of (permanent) flushing media is prohibited
- flushes the mechanical seal with clean flushing medium (such as water) immediately before the pump is switched off or immediately after it is switched off (approx. 50-100 ltr during the course of approx. 1-2 min flushing period)
- prevents sedimentation when the pump is stationary, and crystallization within the pump in the area of the mechanical seal



# X

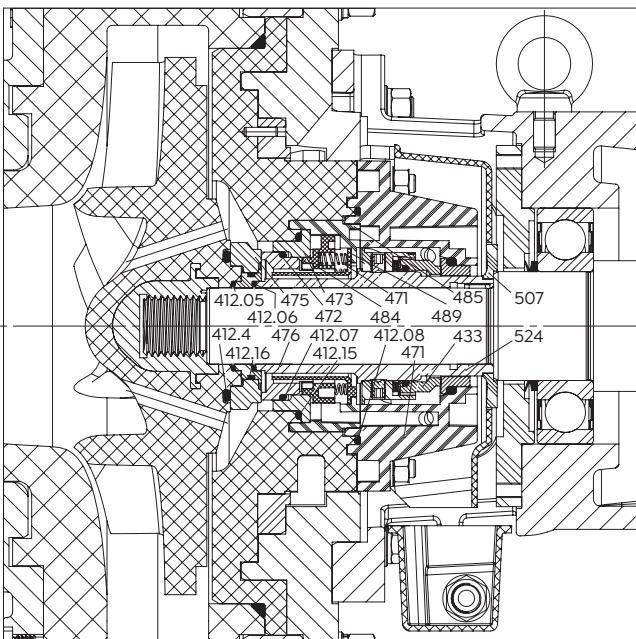
## STÜBBE X-CLASS

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### SINGLE-ACTING HIGH PRESSURE MECHANICAL SEAL WITH INTERNAL FLUSHING – API PLAN 01 TYPE ES2N (UV2)

- universally chemically resistant
- high pressure resistant, robust spring-loaded single mechanical seal in „FGD“-design
- up to 160 °C and up to 8 bar(g) inlet pressure
- up to 16 bar(g) static pressure
- counter ring made of SSiC
- sliding ring made of SSiC
- suitable for solids-laden media and applications with high inlet pressure
- Torques are transmitted via extremely stable interlocking
- if required, can be configured with quenching and/or permanent or standstill flushing



### DOUBLE-ACTING MECHANICAL – API PLAN 53A, 54 AND CONNECTION PLAN BASED ON 53B TYPE DS3N (UV3)

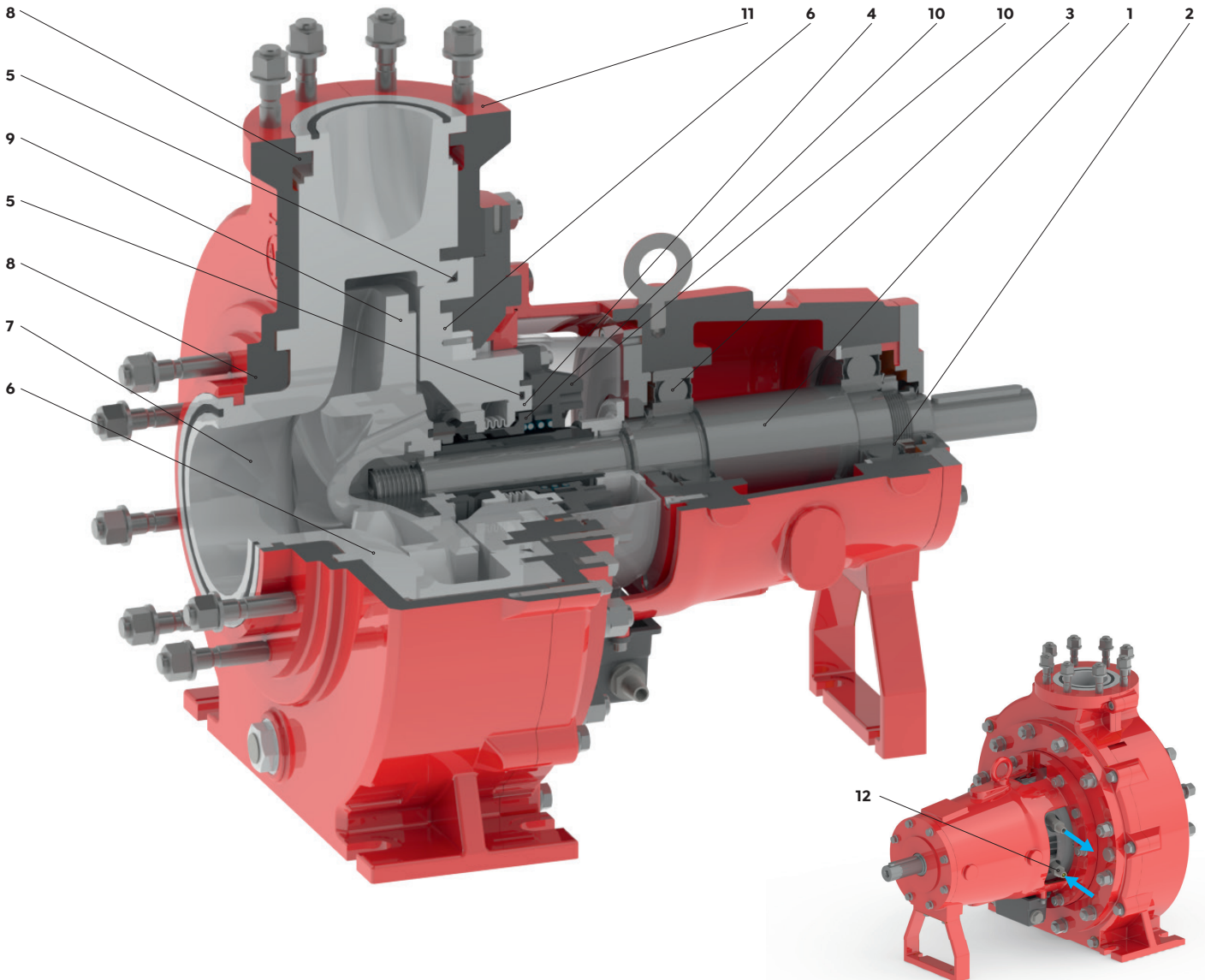
- universally chemically resistant
- high pressure resistant, robust spring-loaded double-acting mechanical seal in „FGD“-design
- up to 160 °C and up to 8 bar(g) inlet pressure
- up to 16 bar(g) static pressure
- identical counter ring on the product side as for the single-acting mechanical seal (modular design principle)
- the high-end solution for highly critical applications (such as all cases where no barrier or flushing medium may mix with the pumped medium)
- Barrier medium with overpressure is necessary (comply with the manufacturer's specifications). Version of the auxiliary plant system with thermosiphon container (circuit) or with free discharge. The discharge must be throttled to the required quantity and pressure.
- The barrier medium must not deposit any residues on the sliding faces. For example, the following are allowed:
  - light-bodied oil without high-pressure additives
  - water/ethylene glycol mixture without corrosion inhibitor additives
  - steam condensate, deionized water

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## SECTIONAL VIEW



| POSITION | DESCRIPTION  |
|----------|--|
| 1        | sturdy universal shaft for any mechanical seal                                 |
| 2        | highly stressable fixed/loose bearing  |
| 3        | lifetime lubricated bearings (standard)  |
| 4        | universally chemically resistant mechanical seal (STÜBBE in-house development) |
| 5        | chambered O-rings  |
| 6        | fully metallic chambered plastic components                                    |

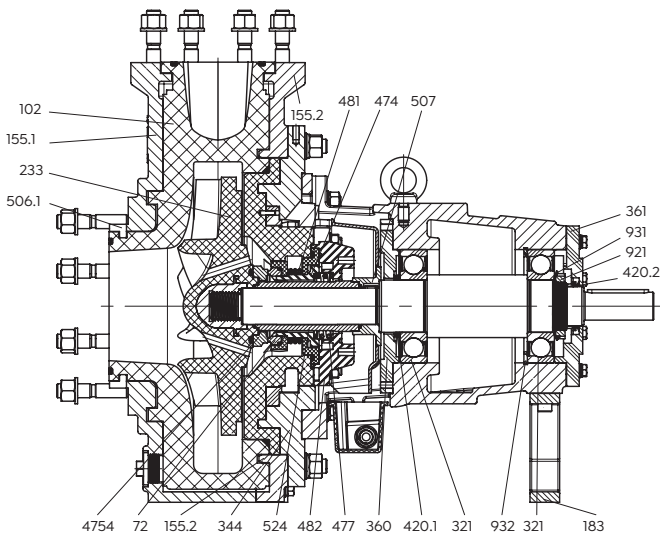
| POSITION | DESCRIPTION   |
|----------|---|
| 7        | plastic components individually replaceable                       |
| 8        | pipe forces are absorbed by metal components                      |
| 9        | efficient hydraulic system  |
| 10       | high production depth for complex thermoplastic components        |
| 11       | DIN/ANSI connections  |
| 12       | all mechanical seal connections always on the side and horizontal |

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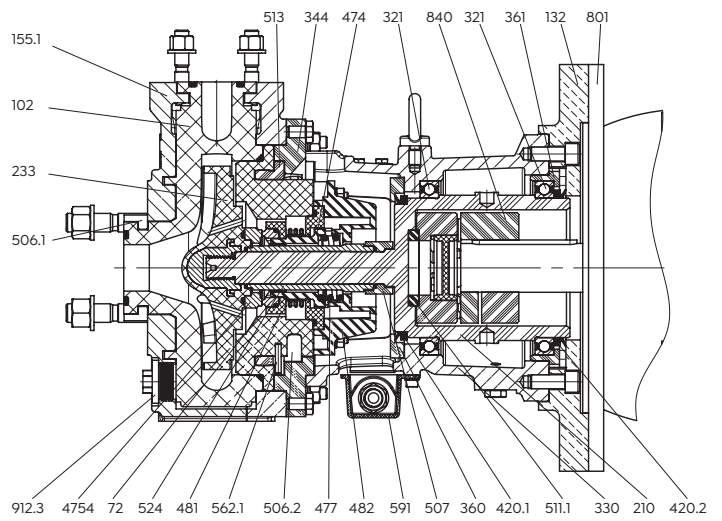
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### STANDARD CHEMICAL PUMP NX



### CHEMICAL CLOSE-COUPLED PUMP BX



| POSITION | DESCRIPTION                 |
|----------|-----------------------------|
| 102      | volute casing               |
| 132      | motor flange adapter        |
| 155.1    | casing armor front side     |
| 155.2    | casing armor back side      |
| 183      | support foot                |
| 233      | impeller                    |
| 321      | radial ball bearing         |
| 344      | bearing carrier lantern     |
| 360      | bearing cover non drive end |
| 361      | bearing cover drive end     |
| 420.1    | axial rotary shaft seal     |
| 420.1    | axial rotary shaft seal     |
| 472      | sliding ring                |
| 474      | thrust ring                 |
| 475      | counter ring                |
| 477      | spring                      |

| POSITION | DESCRIPTION     |
|----------|-----------------|
| 481      | bellows         |
| 482      | bellows carrier |
| 506.1    | retaining ring  |
| 506.2    | retaining ring  |
| 507      | splash ring     |
| 511.1    | centering ring  |
| 513      | insert ring     |
| 524      | shaft sleeve    |
| 591      | collection tray |
| 801      | flange motor    |
| 840      | coupling        |
| 912.3    | screw plug      |
| 921      | groove nut      |
| 931      | locking washer  |
| 932      | circlip         |

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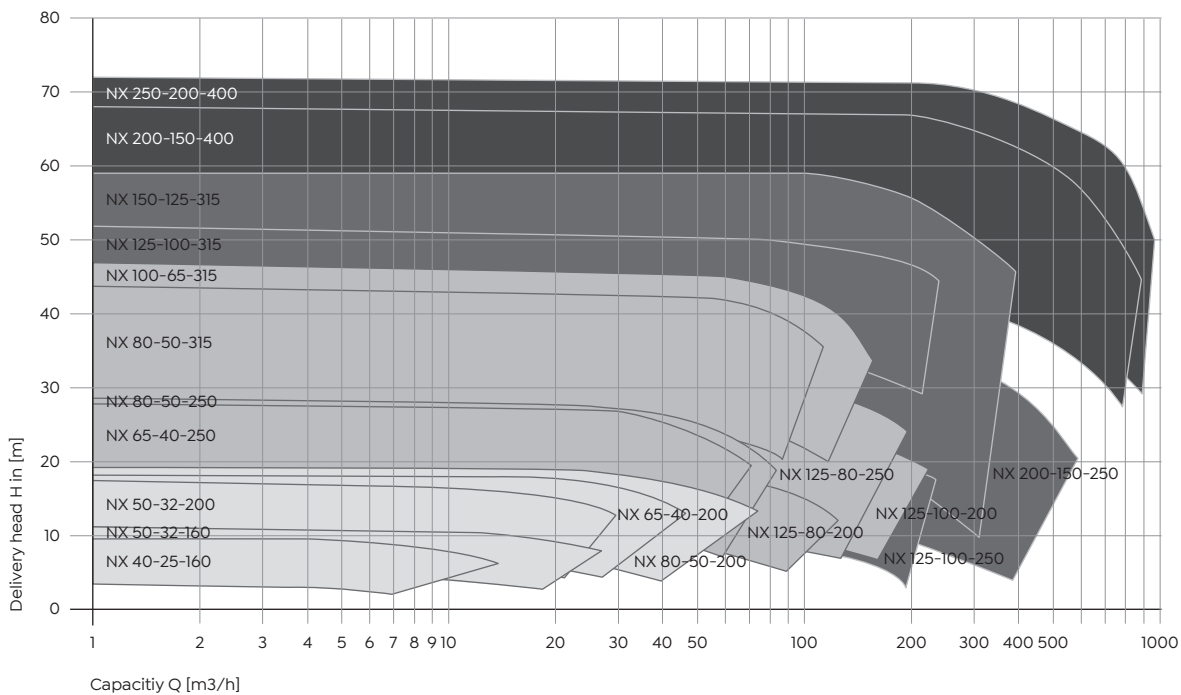
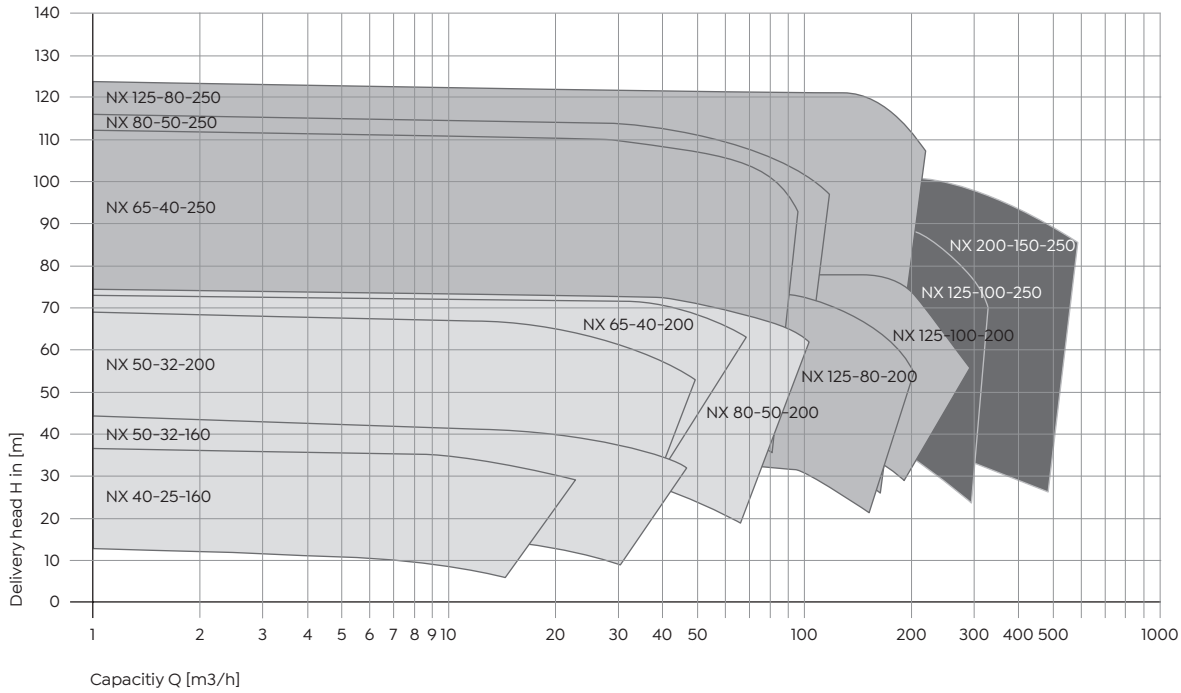
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- BEARING BRACKET SIZE (LTG) I
- BEARING BRACKET SIZE (LTG) II
- BEARING BRACKET SIZE (LTG) III
- BEARING BRACKET SIZE (LTG) IV

The sizes 40-25-160, 100-65-315 and 250-200-400 are loosely based on the standard ISO 2858/DIN EN 22858 (trans standard pumps)

## CHARACTERISTIC CURVES

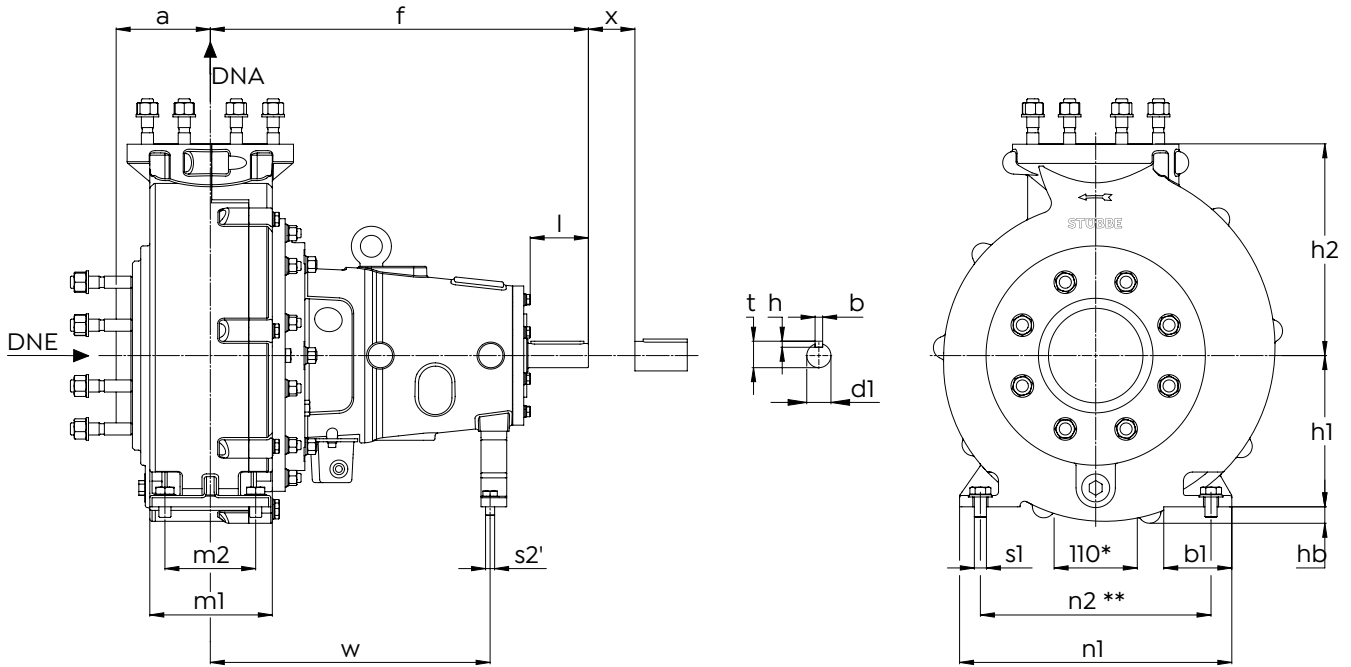


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# DIMENSIONS STANDARD CHEMICAL PUMP NX



\* Dimension 140 for NX 200-150-400 / NX 250-200-400 \*\* Dimension 305 for NX 125-100-200

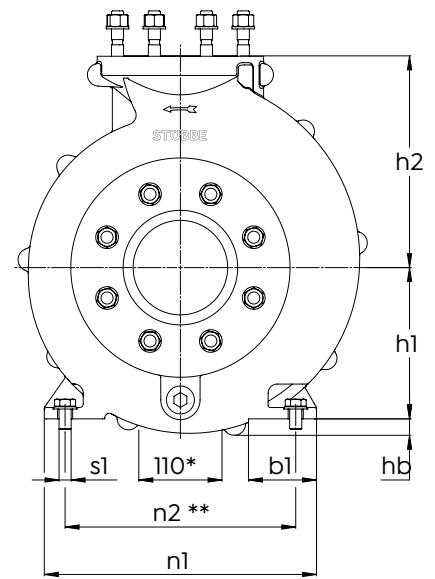
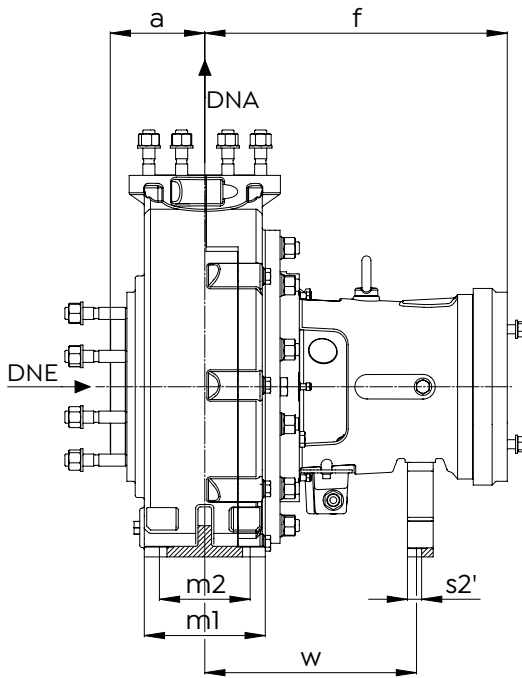
| LTG | Pump type       | FLANGE<br>PN 16 ACC.<br>TO DIN 2501 |     | PUMP DIMENSIONS |     |     |     |    | BASE DIMENSIONS |     |     |     |     |     |     | SHAFT END ACC. TO DIN 748 |     |    |     |      |    |    |
|-----|-----------------|-------------------------------------|-----|-----------------|-----|-----|-----|----|-----------------|-----|-----|-----|-----|-----|-----|---------------------------|-----|----|-----|------|----|----|
|     |                 | DNE                                 | DNA | a               | f   | h1  | h2  | hb | b1              | m1  | m2  | n1  | n2  | s1  | s2' | w                         | x   | d1 | l   | t    | h  | b  |
| I   | NX 40-25-160*   | 40                                  | 25  | 80              | 385 | 132 | 160 | -  | 50              | 100 | 70  | 240 | 190 | M12 | M12 | 285                       | 100 | 24 | 50  | 27,0 | 7  | 8  |
| I   | NX 50-32-160    | 50                                  | 32  | 80              | 385 | 132 | 160 | 13 | 50              | 100 | 70  | 240 | 190 | M12 | M12 | 285                       | 100 | 24 | 50  | 27,0 | 7  | 8  |
| I   | NX 50-32-200    | 50                                  | 32  | 80              | 385 | 160 | 180 | -  | 50              | 100 | 70  | 240 | 190 | M12 | M12 | 285                       | 100 | 24 | 50  | 27,0 | 7  | 8  |
| I   | NX 65-40-200    | 65                                  | 40  | 100             | 385 | 160 | 180 | -  | 50              | 100 | 70  | 265 | 212 | M12 | M12 | 285                       | 100 | 24 | 50  | 27,0 | 7  | 8  |
| II  | NX 65-40-250    | 65                                  | 40  | 100             | 500 | 180 | 225 | -  | 65              | 125 | 95  | 320 | 250 | M12 | M12 | 370                       | 100 | 32 | 80  | 35,0 | 8  | 10 |
| I   | NX 80-50-200    | 80                                  | 50  | 100             | 385 | 160 | 200 | -  | 50              | 100 | 70  | 265 | 212 | M12 | M12 | 285                       | 100 | 24 | 50  | 27,0 | 7  | 8  |
| II  | NX 80-50-250    | 80                                  | 50  | 125             | 500 | 180 | 225 | -  | 65              | 125 | 95  | 320 | 250 | M12 | M12 | 370                       | 100 | 32 | 80  | 35,0 | 8  | 10 |
| II  | NX 80-50-315    | 80                                  | 50  | 125             | 500 | 225 | 280 | -  | 65              | 125 | 95  | 345 | 280 | M12 | M12 | 370                       | 100 | 32 | 80  | 35,0 | 8  | 10 |
| II  | NX 100-65-315*  | 100                                 | 65  | 125             | 500 | 225 | 280 | 25 | 80              | 160 | 120 | 400 | 315 | M16 | M12 | 370                       | 140 | 32 | 80  | 35,0 | 8  | 10 |
| II  | NX 125-80-200   | 125                                 | 80  | 125             | 500 | 180 | 250 | -  | 65              | 125 | 95  | 345 | 280 | M12 | M12 | 370                       | 140 | 32 | 80  | 35,0 | 8  | 10 |
| II  | NX 125-80-250   | 125                                 | 80  | 125             | 500 | 225 | 280 | -  | 80              | 160 | 120 | 400 | 315 | M16 | M12 | 370                       | 140 | 32 | 80  | 35,0 | 8  | 10 |
| II  | NX 125-100-200  | 125                                 | 100 | 125             | 500 | 200 | 280 | 25 | 80              | 160 | 120 | 360 | 305 | M16 | M12 | 370                       | 140 | 32 | 80  | 35,0 | 8  | 10 |
| III | NX 125-100-250  | 125                                 | 100 | 140             | 530 | 225 | 280 | -  | 80              | 160 | 120 | 400 | 315 | M16 | M12 | 370                       | 140 | 42 | 110 | 45,0 | 8  | 12 |
| III | NX 125-100-315  | 125                                 | 100 | 140             | 530 | 250 | 315 | -  | 80              | 160 | 120 | 400 | 315 | M16 | M12 | 370                       | 140 | 42 | 110 | 45,0 | 8  | 12 |
| III | NX 150-125-315  | 150                                 | 125 | 140             | 530 | 280 | 355 | 25 | 100             | 200 | 150 | 500 | 400 | M20 | M12 | 370                       | 140 | 42 | 110 | 45,0 | 8  | 12 |
| III | NX 200-150-250  | 200                                 | 150 | 160             | 530 | 280 | 375 | -  | 100             | 200 | 150 | 500 | 400 | M20 | M12 | 370                       | 180 | 42 | 110 | 45,0 | 8  | 12 |
| IV  | NX 200-150-400  | 200                                 | 150 | 160             | 670 | 315 | 450 | -  | 100             | 200 | 150 | 550 | 450 | M20 | M12 | 500                       | 180 | 48 | 110 | 51,5 | 9  | 14 |
| IV+ | NX 250-200-400* | 250                                 | 200 | 180             | 720 | 355 | 500 | -  | 100             | 250 | 150 | 550 | 450 | M20 | M16 | 500                       | 180 | 60 | 110 | 64,0 | 11 | 18 |

# X

## STÜBBE X-CLASS

Standard chemical pump NX  
Chemical close-coupled  
pump BX

# DIMENSIONS CHEMICAL CLOSE-COUPLE PUMP BX



\* Dimension 305 for BX 125-200

| LTG | Pump type      | FLANGE<br>PN 16 ACC. TO<br>DIN 2501 |     | PUMP DIMENSIONS |     |     |     |    | BASE DIMENSIONS |     |     |     |     |     |     |     |
|-----|----------------|-------------------------------------|-----|-----------------|-----|-----|-----|----|-----------------|-----|-----|-----|-----|-----|-----|-----|
|     |                | DNE                                 | DNA | a               | f   | h1  | h2  | hb | b1              | m1  | m2  | n1  | n2  | s1  | s2' | w   |
| I   | BX 40-25-160   | 40                                  | 25  | 80              | 320 | 132 | 160 | -  | 50              | 100 | 70  | 240 | 190 | M12 | M12 | 285 |
| I   | BX 50-32-160   | 50                                  | 32  | 80              | 320 | 132 | 160 | 13 | 50              | 100 | 70  | 240 | 190 | M12 | M12 | 285 |
| I   | BX 50-32-200   | 50                                  | 32  | 80              | 320 | 160 | 180 | -  | 50              | 100 | 70  | 240 | 190 | M12 | M12 | 285 |
| I   | BX 65-40-200   | 65                                  | 40  | 100             | 320 | 160 | 180 | -  | 50              | 100 | 70  | 265 | 212 | M12 | M12 | 285 |
| II  | BX 65-40-250   | 65                                  | 40  | 100             | 400 | 180 | 225 | -  | 65              | 125 | 95  | 320 | 250 | M12 | M12 | 370 |
| I   | BX 80-50-200   | 80                                  | 50  | 100             | 320 | 160 | 200 | -  | 50              | 100 | 70  | 265 | 212 | M12 | M12 | 285 |
| II  | BX 80-50-250   | 80                                  | 50  | 125             | 400 | 180 | 225 | -  | 65              | 125 | 95  | 320 | 250 | M12 | M12 | 370 |
| II  | BX 80-50-315   | 80                                  | 50  | 125             | 400 | 225 | 280 | -  | 65              | 125 | 95  | 345 | 280 | M12 | M12 | 370 |
| II  | BX 100-65-315  | 100                                 | 65  | 125             | 400 | 225 | 280 | 25 | 80              | 160 | 120 | 400 | 315 | M16 | M12 | 370 |
| II  | BX 125-80-200  | 125                                 | 80  | 125             | 400 | 180 | 250 | -  | 65              | 125 | 95  | 345 | 280 | M12 | M12 | 370 |
| II  | BX 125-80-250  | 125                                 | 80  | 125             | 400 | 225 | 250 | -  | 80              | 160 | 120 | 400 | 315 | M16 | M12 | 370 |
| II  | BX 125-100-200 | 125                                 | 100 | 125             | 400 | 200 | 280 | 25 | 80              | 160 | 120 | 360 | 305 | M16 | M12 | 370 |

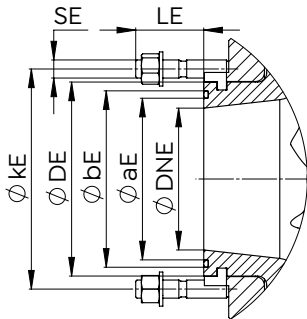
# X

## STÜBBE X-CLASS

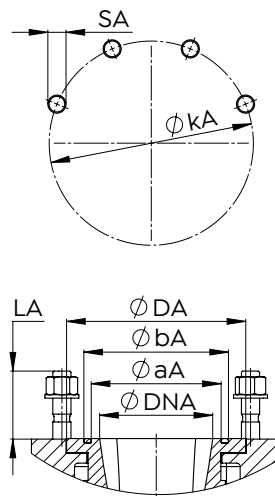
Standard chemical pump NX  
Chemical close-coupled  
pump BX

## DIMENSIONS NOZZLES DIN

Inlet



Outlet



Flange adaptation according to DIN EN 1092-1

| Pump type |     |     | Inlet nozzle dimension |       |       |      |     |     |        | Outlet nozzle dimension |       |     |      |     |     |        |
|-----------|-----|-----|------------------------|-------|-------|------|-----|-----|--------|-------------------------|-------|-----|------|-----|-----|--------|
| DNE       | DNA | Ø   | ØaE                    | ØbE   | ØDE   | LE   | ØkE | ØSE | Number | ØaA                     | ØbA   | ØDA | LA   | ØkA | ØSA | Number |
| 40        | 25  | 160 | 50,5                   | 63,5  | 79,5  | 49,5 | 110 | M16 | 4      | 34,5                    | 47,5  | 68  | 44,5 | 85  | M12 | 4      |
| 50        | 32  | 160 | 63,0                   | 76,0  | 95,0  | 49,5 | 125 | M16 | 4      | 44,2                    | 57,2  | 76  | 49,5 | 100 | M16 | 4      |
| 50        | 32  | 200 | 63,0                   | 76,0  | 95,0  | 49,5 | 125 | M16 | 4      | 44,2                    | 57,2  | 76  | 49,5 | 100 | M16 | 4      |
| 65        | 40  | 200 | 78,5                   | 91,5  | 107,0 | 59,5 | 145 | M16 | 4      | 50,5                    | 63,5  | 88  | 59,5 | 110 | M16 | 4      |
| 65        | 40  | 250 | 78,5                   | 91,5  | 107,0 | 59,5 | 145 | M16 | 4      | 50,5                    | 63,5  | 88  | 59,5 | 110 | M16 | 4      |
| 80        | 50  | 200 | 94,5                   | 107,5 | 123,0 | 59,5 | 160 | M16 | 8      | 63,0                    | 76,0  | 97  | 59,5 | 125 | M16 | 4      |
| 80        | 50  | 250 | 94,5                   | 107,5 | 123,0 | 59,5 | 160 | M16 | 8      | 63,0                    | 76,0  | 97  | 59,5 | 125 | M16 | 4      |
| 80        | 50  | 315 | 94,5                   | 107,5 | 123,0 | 59,5 | 160 | M16 | 8      | 63,0                    | 76,0  | 97  | 59,5 | 125 | M16 | 4      |
| 100       | 65  | 315 | 114,5                  | 127,5 | 142,0 | 60,0 | 180 | M16 | 8      | 79,0                    | 92,0  | 117 | 59,5 | 145 | M16 | 4      |
| 125       | 80  | 200 | 142,5                  | 155,5 | 171,0 | 58,0 | 210 | M16 | 8      | 94,5                    | 107,5 | 131 | 59,5 | 160 | M16 | 8      |
| 125       | 80  | 250 | 142,5                  | 155,5 | 171,0 | 60,0 | 210 | M16 | 8      | 94,5                    | 107,5 | 131 | 59,5 | 160 | M16 | 8      |
| 125       | 100 | 200 | 142,5                  | 155,5 | 171,0 | 60,0 | 210 | M16 | 8      | 114,5                   | 127,5 | 158 | 59,5 | 180 | M16 | 8      |
| 125       | 100 | 250 | 142,5                  | 155,5 | 171,0 | 60,0 | 210 | M16 | 8      | 114,5                   | 127,5 | 158 | 59,5 | 180 | M16 | 8      |
| 125       | 100 | 315 | 142,5                  | 155,5 | 171,0 | 60,0 | 210 | M16 | 8      | 114,5                   | 127,5 | 157 | 59,5 | 180 | M16 | 8      |
| 150       | 125 | 315 | 140                    | 186,5 | 200,0 | 66,5 | 240 | M20 | 8      | 142,5                   | 155,5 | 185 | 59,5 | 210 | M16 | 8      |
| 200       | 150 | 250 | 219,0                  | 232,0 | 256,0 | 66,5 | 295 | M20 | 12     | 174,5                   | 187,5 | 209 | 69,5 | 240 | M20 | 8      |
| 200       | 150 | 400 | 219,0                  | 232,0 | 256,0 | 66,5 | 295 | M20 | 12     | 174,5                   | 187,5 | 209 | 69,5 | 240 | M20 | 8      |
| 250       | 200 | 400 | 276,0                  | 289,0 | 305,0 | 79,5 | 355 | M24 | 12     | 219,0                   | 232,0 | 260 | 70,0 | 295 | M20 | 12     |

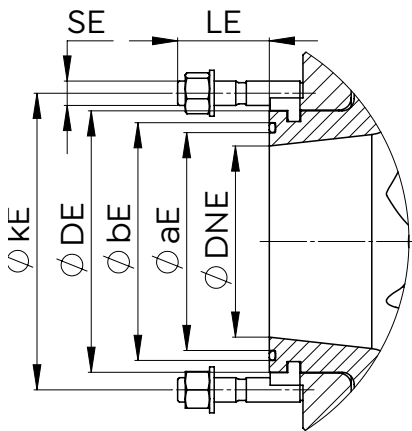
# X

## STÜBBE X-CLASS

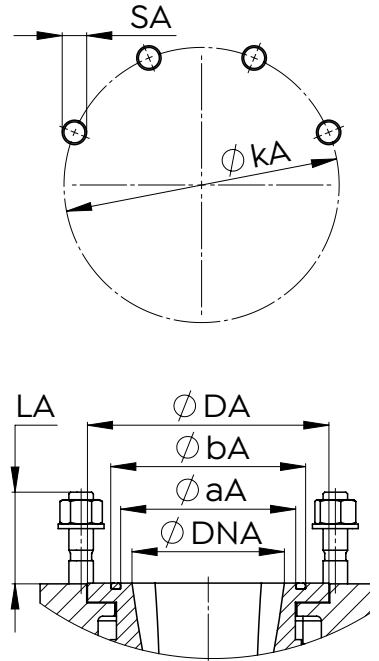
Standard chemical pump NX  
Chemical close-coupled  
pump BX

## DIMENSIONS NOZZLES ANSI

Inlet



Outlet



Flange adaptation according to ANSI B16.5

| Pump type   | Inlet nozzle dimension |        |       |       |       |      |       |     |        | Outlet nozzle dimension |       |     |      |       |     |        |
|-------------|------------------------|--------|-------|-------|-------|------|-------|-----|--------|-------------------------|-------|-----|------|-------|-----|--------|
|             | DNE                    | DNA    | ØaE   | ØbE   | ØDE   | LE   | ØKE   | ØSE | Number | ØaA                     | ØbA   | ØDA | LA   | ØkA   | ØSA | Number |
| 40-25-160   | 11W2"                  | 1"     | 50,5  | 63,5  | 79,5  | 49,5 | 98,5  | M12 | 4      | 34,5                    | 47,5  | 68  | 44,5 | 79,2  | M12 | 4      |
| 50-32-160   | 2"                     | 1 1/4" | 63,0  | 76,0  | 95,0  | 49,5 | 120,6 | M16 | 4      | 44,2                    | 57,2  | 76  | 49,5 | 88,9  | M12 | 4      |
| 50-32-200   | 2"                     | 1 1/4" | 63,0  | 76,0  | 95,0  | 49,5 | 120,6 | M16 | 4      | 44,2                    | 57,2  | 76  | 49,5 | 88,9  | M12 | 4      |
| 65-40-200   | 2 1/2"                 | 1 1/2" | 78,5  | 91,5  | 107,0 | 59,5 | 139,7 | M16 | 4      | 50,5                    | 63,5  | 88  | 59,5 | 98,5  | M12 | 4      |
| 65-40-250   | 2 1/2"                 | 1 1/2" | 78,5  | 91,5  | 107,0 | 59,5 | 139,7 | M16 | 4      | 50,5                    | 63,5  | 88  | 59,5 | 98,5  | M12 | 4      |
| 80-50-200   | 3"                     | 2"     | 94,5  | 107,5 | 123,0 | 59,5 | 152,4 | M16 | 8      | 63,0                    | 76,0  | 97  | 59,5 | 120,6 | M16 | 4      |
| 80-50-250   | 3"                     | 2"     | 94,5  | 107,5 | 123,0 | 59,5 | 152,4 | M16 | 8      | 63,0                    | 76,0  | 97  | 59,5 | 120,6 | M16 | 4      |
| 80-50-315   | 3"                     | 2"     | 94,5  | 107,5 | 123,0 | 59,5 | 152,4 | M16 | 8      | 63,0                    | 76,0  | 97  | 59,5 | 120,6 | M16 | 4      |
| 100-65-315  | 4"                     | 2 1/2" | 114,5 | 127,5 | 142,0 | 60,0 | 190,5 | M16 | 8      | 79,0                    | 92,0  | 117 | 59,5 | 139,7 | M16 | 4      |
| 125-80-200  | 5"                     | 3"     | 142,5 | 155,5 | 171,0 | 60,0 | 215,9 | M20 | 8      | 94,5                    | 107,5 | 131 | 59,5 | 152,4 | M16 | 8      |
| 125-80-250  | 5"                     | 3"     | 142,5 | 155,5 | 171,0 | 60,0 | 215,9 | M20 | 8      | 94,5                    | 107,5 | 131 | 59,5 | 152,4 | M16 | 8      |
| 125-100-200 | 5"                     | 4"     | 142,5 | 155,5 | 171,0 | 60,0 | 215,9 | M20 | 8      | 114,5                   | 127,5 | 158 | 59,5 | 190,5 | M16 | 8      |
| 125-100-250 | 5"                     | 4"     | 142,5 | 155,5 | 171,0 | 60,0 | 215,9 | M20 | 8      | 114,5                   | 127,5 | 158 | 59,5 | 190,5 | M16 | 8      |
| 125-100-315 | 5"                     | 4"     | 142,5 | 155,5 | 171,0 | 60,0 | 215,9 | M20 | 8      | 114,5                   | 127,5 | 157 | 59,5 | 190,5 | M16 | 8      |
| 150-125-315 | 6"                     | 5"     | 140   | 186,5 | 200,0 | 66,5 | 241,3 | M20 | 8      | 142,5                   | 155,5 | 185 | 59,5 | 215,9 | M20 | 8      |
| 200-150-250 | 8"                     | 6"     | 219,0 | 232,0 | 256,0 | 66,5 | 298,4 | M20 | 12     | 174,5                   | 187,5 | 209 | 69,5 | 241,3 | M20 | 8      |
| 200-150-400 | 8"                     | 6"     | 219,0 | 232,0 | 256,0 | 66,5 | 298,4 | M20 | 12     | 174,5                   | 187,5 | 209 | 69,5 | 241,3 | M20 | 8      |
| 250-200-400 | 10"                    | 8"     | 276,0 | 289,0 | 305,0 | 79,5 | 361,9 | M24 | 12     | 219,0                   | 232,0 | 260 | 70,0 | 298,4 | M20 | 12     |